Remarks by Fred Gregory
Embry-Riddle Aeronautical University
Arts & Sciences Commencement Ceremony
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Thank you Dean Piercey (Dean Buzz Piercey) for that wonderful introduction. It's great to be back at Embry-Riddle for the third time in 20 months to help your wonderful students celebrate this important milestone.

When I first came to Emry-Riddle in the spring of 2004, I very much enjoyed a brief campus tour and the opportunity to speak to the leaders and members of your outstanding Air Force ROTC Detachment 157 at their annual spring banquet.

During the banquet, the young men and women of the Detachment conducted a very moving ceremony paying tribute to the heroes who have fallen in our nation's wars. As a veteran who lost many friends to combat in Vietnam, I was quite taken by this heartfelt

gesture, and by the maturity and intelligence of the cadets I had the privilege of speaking with that evening. So if any of you are from that detachment, I would be honored if you would please stand up and be recognized.

That visit also occurred just a few weeks after a Junior Cadet named Glenn Meleen made national headlines after he skillfully made an emergency landing of his plane into the cab of a moving truck.

Let me just say that you folks certainly teach some very creative piloting techniques down here.

But let me tell you, he's just the kind of person we want in the future to help us achieve pinpoint landing on an asteroid or to fly through the thin atmosphere of Mars. And I'll bet there are more than a few like him in this graduating class.

Now when I accepted your generous invitation to speak, I naturally thought about my days as a student at the Air Force Academy. One of my indelible memories was sitting in the stands at the Academy's brand new

football stadium listening to a young President named John Kennedy address the graduating class of 1963, the class one year ahead of me. Kennedy had memorably called the young people of our nation to serve in causes greater than their self interest, and to accept the challenges of a world filled with New Frontiers.

So much of what lay ahead in my life on that day in 1963— learning to be a helicopter and fixed wing pilot, flying as a test pilot for NASA and then as an astronaut, where I had the opportunity to look at our beautiful planet from space on three Shuttle missions—that would have been incomprehensible to me back then, just as where the path your life may take you in the future may be incomprehensible to you today.

But even if the future is a mist, I believe you have great reasons to have confidence about that future as you have been supported by some tremendous pillars in your lives up until this point—the nurturing and supporting pillars of family, church, community and school. With

respect to this school, many of you have come here because you have a passion for flight and for technical challenges. I encourage you to keep the embers of this passion burning bright.

In my youth, my interest in flight grew out of my dad taking me to the air shows at Andrews Air Force Base, the home of Air Force One. At one of these air shows I was thrilled by the Air Force flying demonstration group, the Thunderbirds. I remember asking one of the Thunderbird pilots how I could become one of them. He told me that they were building a new Air Force Academy in Colorado, and said if I wanted to become a Thunderbird, I should go there. And as you can see, the passion I had for flying never let up.

Today, I can tell you, the frontiers we face are even greater, even more promising than those I faced as a student of that era.

In the space program, for example, we are on a course, that I have advocated for years, where we are finally going to get beyond low Earth orbit, and provide our astronauts and the engineers and scientists who support them, the opportunity to expand our exploration reach throughout the solar system.

Just think about it. In a matter of years, I believe people around the globe will be able to look up at the Moon, and with the aid of a strong telescope, be able to see the glimmering lights of a research station on the lunar surface. At this research station, pioneering astronauts will be learning how to obtain useful resources such as oxygen from the lunar soil. They will be deploying small antennas on the back side of the Moon, which can be linked in phase to form the largest radio telescope ever built, free of radio noise from Earth. They will be engaged in geological exploration of the Moon, finally establishing the origins of our Earth-Moon system. And other astronauts, in low Earth orbit, will be readying

a 500 ton spaceship for mankind's first voyage to Mars.

And let me make a prediction that I hope I'll get credit for 25 years from now. The first astronaut to explore the surface of Mars may well be a member of this graduating class, following in the footsteps of Daniel Burbank, Alvin Drew, Ronald Garan, Susan Kilrain, Nicole Stott and Terry Virts, the other astronauts who attended Embry Riddle. Let me see a show of hands of the people who think they may be that pioneering astronaut.

Indeed, for those of you whose career path will involve the space program, even if you aren't an astronaut, I'm confident you will have opportunities to tackle some of the most rewarding challenges that one could imagine, over the entire course of your career. NASA is undertaking a sustainable, long-term, multi-generational program that will enable human beings to do things that have never been done before and see things that have never been seen before. If I were graduating

from Embry-Riddle today, I would want to work at NASA because of these challenges.

Of course, there are many conceivable paths for the people in this graduating class. Members of the Embry-Riddle class of 2005 may also become involved taking on the challenges of the frontiers of international commerce, of scientific research, of homeland defense and of 21st century aviation.

To all of our graduates and their families, I have a simple message. You have every right to be proud of this moment and your accomplishments. You should be tremendously proud of what you have accomplished.

When my fellow astronaut Neil Armstrong took humanity's first steps on the moon some 36 years ago, he said, "That's one small step for a man, one giant leap for mankind." In a few moments, all of you are about to take a few steps to receive your diplomas. Like Neil's, each of those steps represents the giant leap that you have achieved by making the commitment to pursue your

college degree, and by following through on that commitment through a lot of hard work and perseverance.

We know for sure this degree is not being handed to any of you on a silver platter. Many of you have traveled a long way to get your education. Others have had to overcome significant personal obstacles while pursuing your degree.

By balancing academic, work and other commitments like an expert tightrope walker, all of you have gone the extra mile to advance your education and better yourself. You have earned this singular moment, this giant leap.

In a sense, earning your degrees represents a significant milestone in the great exploration activity we call life.

But remember, this is only one of many milestones to come. With this honor comes responsibility. One of those responsibilities is to step up to leadership opportunities that will come your way and to also take advantage of the opportunities many of you will have to

participate in enterprises that will keep American innovation strong and moving forward.

A generation ago, on the eve of the first robotic spacecraft landing on Mars, NASA held a symposium on exploration that featured the late author James Michener, best remembered for such works as South Pacific and Centennial. "When one deals with exploration, one has got to be aware that in every generation one field of exploration ends," he said. Michener continued on as follows: "As that epoch ends, we start something new. We are always at the end of something, always at the beginning of something else. This is true not only of societies, not only of total culture, but also of individuals. If we have no accomplishment, if we never know success, we lead embittered lives. But if we stop with one success and do not recognize that it stands merely as a threshold to something greater, more complex, more infinite, then I think we do only half our job." …So, there you have it. Congratulations! Now get to work.

I would like to share with you one of my work experiences from the three times that I had the enormous opportunity to fly on the Space Shuttle into orbit.

As you could well imagine it was simply magnificent to view the Earth, the cradle of humanity, from this unique vantage point.

On my first Shuttle flight back in 1985, I remember how during my first two days in orbit I was absolutely fascinated to look down on the Washington, D.C. area and to marvel how this was what my hometown looked like from over 100 miles overhead.

I must admit I was surprised my crewmates weren't as fascinated as me about looking at Washington, as they were focused on their own hometowns. We were all hometown centric.

After about the second or third day as we kept looking down, I noticed that all the Americans on the crew had become U.S. centric.

Our crewmember from the Netherlands, Lodewijk van den Berg, similarly enjoyed looking down on all the tulip fields in Holland. And Taylor Wang, who was born in Shanghai, loved to look at mainland China.

After five or six days something remarkable happened. We had all lost that nationalism and began looking at our home planet as citizens of the world. And when you think about recent world history, this is a tremendously hopeful perspective to have.

I am filled with joy to think that as NASA takes on the great challenge of extending the reach of human civilization throughout the solar system with our new exploration vision, men and women of many different nationalities, races and religions, will go on to explore the cosmos truly on behalf of all humankind.

This is the element of space exploration that has the greatest meaning for me. I look forward to a future that hold great promise for all of those who will continue to

carry the torch of exploration to heights unimagined and into frontiers unknown.

Please allow me to leave you with one other thought about the adventures you have ahead, by drawing on remarks President Kennedy gave in another venue as he related a story told by the Irish writer Frank O'Connor.

"O'Connor wrote how as a boy he and his friends would make their way across the countryside," said President Kennedy. "When they came to an orchard wall that seemed to high and too doubtful to try and too difficult to permit their voyage to continue, they took off their hats and tossed them over the wall—and then they had no choice but to follow them."

President Kennedy concluded, "This nation has tossed its cap over the wall of space, and we have no choice but to follow it. Whatever the difficulties, they will be overcome. Whatever the hazards, they must be guarded against. With the help of all those who labor in the space endeavor, with the help and support of all

Americans, we will climb this wall with safety and with speed—and we shall then explore the wonders on the other side."

And that's exactly what our space program will allow us to do in the decades ahead. American will lead in space and provide unique opportunities for every interested person to take on great challenges and participate in an amazing exploration journey.

Soon, all of you will have the opportunity to toss your graduation caps in the air. Like Frank O'Connor and his friends, I hope you toss your caps up as high as possible over the wall separating you from your scholastic life and your life to come, and that in whatever direction you set forth you have a great adventure exploring the wonders on the other side. Thank you and congratulations to the Class of 2005.